

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/940,072	YANG ET AL.	
	Examiner	Art Unit	
	Carlos Lopez	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 6/19/06 and 9/18/06.
2.  The allowed claim(s) is/are 1-4,6-7,9-24,29-38,50,52-55,57-75,77-82.
3.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

- |   |  |
|---|--|
| <ol style="list-style-type: none"> <li>1. <input type="checkbox"/> Notice of References Cited (PTO-892)</li> <li>2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br/>Paper No./Mail Date _____</li> <li>4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br/>of Biological Material</li> </ol> | <ol style="list-style-type: none"> <li>5. <input type="checkbox"/> Notice of Informal Patent Application</li> <li>6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),<br/>Paper No./Mail Date <u>9/18/06</u>.</li> <li>7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment</li> <li>8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance</li> <li>9. <input type="checkbox"/> Other _____.</li> </ol> |
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***Drawings***

The drawings filed on 8/27/01 are accepted by the Examiner.

**EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Tani Chen on 9/18/06.

The application has been amended as follows:

50. (Currently amended) A method comprising:

providing a mold;

silanizing the mold;

filling the silanized mold with a ceramic precursor; and

dissolving the filled mold in a solution containing fluoride ions.

52. (Currently amended) A method comprising:

providing a silanized mold having at least one component with at least one dimension less than 100  $\mu\text{m}$ ;

providing a ceramic precursor having sufficient viscosity to completely fill the mold, wherein the viscosity of the ceramic precursor is adjusted to have a value of less than about 500  $\text{cm}^2/\text{s}$ ;

thereafter, filling the mold with the ceramic precursor, and  
dissolving the filled mold in a solution containing fluoride ions.

53. (Currently amended) A method comprising:

providing a mold having at least one component with at least one dimension less than 100 µm;  
reacting the mold with an agent selected from the group consisting of an alkylating, silylating, fluoroalkylating, or alkylsilylating agent, such that the mold is inert with respect to reaction with a ceramic precursor and any subsequent products resulting from the ceramic precursor;

thereafter, filling the mold with the ceramic precursor; and  
dissolving the filled mold in a solution containing fluoride ions.

54. (Currently amended) A method comprising:

providing a mold having at least one component with at least one dimension less than 100 µm;  
positioning a surface of the mold against a surface of a substrate to create a cavity which a ceramic precursor fills;  
treating the substrate surface to render the substrate inert with respect to reaction with the ceramic precursor and any subsequent products resulting from the ceramic precursor; and  
dissolving the mold comprising the ceramic precursor in a solution containing fluoride ions.

55. (Currently amended) A method comprising:

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providing a silanized mold having at least one component with at least one dimension less than 100  $\mu\text{m}$ ;

allowing a ceramic precursor to enter a volume of lower pressure in the mold;

dissolving the mold comprising the ceramic precursor in a solution containing fluoride ions.

57. (Currently amended) A method comprising:

providing a mold having at least one component with at least one dimension less than 100  $\mu\text{m}$ ;

filling the mold with a ceramic precursor;

curing the ceramic precursor in the mold under a moisture-free atmosphere; and

dissolving the mold comprising the ceramic precursor in a solution containing fluoride ions.

58. (Previously presented) A method comprising:

providing a mold having at least one component with at least one dimension less than 100  $\mu\text{m}$ ;

filling the mold with a ceramic precursor; and

dissolving the filled mold in a solution containing fluoride anions.

59. (Currently amended) A method comprising:

providing an elastomeric mold comprising polydialkylsiloxane material having at least one component with at least one dimension less than 100  $\mu\text{m}$ ;

filling the mold with a ceramic precursor; and  
heating the ceramic precursor in the mold to produce a structure comprising of a ceramic, the structure having a Young's modulus that does not change more than 10% upon heating to 1400 °C in an inert atmosphere; and  
dissolving the mold comprising the heated ceramic precursor in a solution containing fluoride anions.

63. (Currently Amended) The method of claim 52, further comprising heating the ceramic precursor in the mold to produce a structure comprising ceramic.

66. (Currently Amended) The method of claim 53, further comprising heating the ceramic precursor in the mold to produce a structure comprising ceramic.

**Claim 76 has been cancelled.**

77. (Currently Amended). The method of claim [76] 57, wherein the ceramic precursor is cured in the mold under an inert ~~and/or a moisture free~~ atmosphere.

82. (Currently Amended). The method of claim 81, wherein the ceramic precursor is cured in the mold under ~~an inert and/or~~ a moisture free atmosphere.

**CONCLUSION**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CL



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